



## Quantifying the impact of climate change on enteric waterborne pathogen concentrations in surface water

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### Abstract:

Climate change, among other factors, will impact waterborne pathogen concentrations in surface water worldwide, possibly increasing the risk of diseases caused by these pathogens. So far, the impacts are only determined qualitatively and thorough quantitative estimates of future pathogen concentrations have not yet been made. This review shows how changes in temperature and precipitation influence pathogen concentrations and gives opportunities to quantitatively explore the impact of climate change on pathogen concentrations using examples from ecological and hydrological modelling, already available statistical and process-based pathogen models and climate change scenarios. Such applications could indicate potential increased waterborne pathogen concentrations and guide further research.

**Source:** <http://dx.doi.org/10.1016/j.cosust.2011.10.006>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Quality, Precipitation, Temperature

**Extreme Weather Event:** Drought, Flooding

**Food/Water Quality:** Pathogen

#### Geographic Feature:

resource focuses on specific type of geography

Freshwater

#### Geographic Location:

resource focuses on specific location

Global or Unspecified

#### Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

**Infectious Disease:** Foodborne/Waterborne Disease

**Foodborne/Waterborne Disease:** General Foodborne/Waterborne Disease, Other Diarrheal Disease

**Population of Concern:** A focus of content

**Population of Concern:** ☒

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status

**Resource Type:** ☒

format or standard characteristic of resource

Review

**Timescale:** ☒

time period studied

Time Scale Unspecified